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Health—the poor man's riches, the rich man's bliss.

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"WHAT shall we do?" is the oft repeated exclamation of the many, at this time of dreaded pestilence.—We say of dreaded pestilence—for its actual presence and spread hardly excite the dismay which is produced by anticipation of its arrival. To the question, we would reply—"Do not make fools of yourselves—do not allow your fears to so master your judgment, as to bring your religion, your philosophy, or your charity, into contempt." In the first place, if you are among the corporate authorities of a city or town, do not commit the exquisite absurdity, not less than cruelty, of prohibiting all intercourse with a neighbouring city or district, in which the cholera may happen to prevail. Your excuse that the measure may protect you—may be of service—or affords some chance of exemption, will not serve you. If you thus speak from ignorance of what has been attempted and failed elsewhere, you are inexcusable in proposing important measures, without the necessary information which you could easily obtain. If, knowing what has been done elsewhere, you set yourself up in direct and wilful opposition to positive knowledge, and nearly universal experience, you furnish argument and justification to any of your fellow-citizens, for setting at naught not only your office—but the laws in general. On your own showing, every man, despite the experience of the world—despite the admitted testimony in favour of moral obli-

gation and equity, may claim the privilege of setting up for himself, and to only rest satisfied with his own personal experience, however much he may, in the trial, interfere with the rights of property and person of other members of society.

All the states of Europe have enforced quarantine laws; nearly all the great cities on the continent have been surrounded by sanitary cordons, and all intercourse between them and diseased places cut off; but they have in succession been attacked by cholera, with just as much rapidity as the cities in India had been attacked—between which there was free intercourse. Nothing swayed by these facts, and the withdrawal of quarantine restrictions by the Austrian, Russian, and Prussian governments, in their respective dominions, as not only useless, but positively prejudicial; nothing enlightened by the want of success of the quarantine enforced in the English ports—nor by the appearance of cholera in the heart of Paris, without any town or spot on the coast, or any intermediate place, being visited by the disease—nor any known or admitted possible means of transmission by persons or goods; in nowise admonished by these, and numerous other facts, well known and well attested, the authorities in the state of New York commenced a course of wild—may we not say insane—restriction and exclusion. The common charities of life were abolished in the most selfish fears—travellers stopped—the poor emigrants deprived of the common rights of hospitality, and treated too often as wild beasts or rabid animals, approach to whom would be death—the canals were emptied, and boatmen thrown out of employment, and left to idleness, to exaggerated fears, or to dissipation. And of what avail were all these measures? As if in mockery of them all, the city most remote from Canada, the great commercial emporium of the state, was the first assailed.—Were the first victims emigrants from Europe, or persons from Canada? Not at all—they were inmates of a prison, who had had no intercourse with *infected* places, persons, or goods. Still the lesson seems to be incomplete. Rhode Island must, in the plenitude of the wisdom of her constituted authorities, forbid all intercourse with New York—and passengers in boats—travellers, well or sick—vessels driven into harbour by misfortunes at sea, as fire and the like, are all turned away, as if they were the imbodyings of pestilence and sin. Small will be the sympathies of those at a distance, if the people of that state become, in their turn, the sufferers from cholera. We are told that this is an age of improvement—that the schoolmaster is abroad.—He seems, however, in the present instance, to be either asleep or drunk, in the places in which measures so selfish, cruel, and absurd, have been adopted, by general clamour, as it were.

To every individual in the community crying out—"What

shall I do?" again we would reply—"Do not make a fool of yourself!"—It is forbidden by your religion, morality, or good sense, to believe in sorcery or witchcraft, and to put faith in charms, amulets, or love potions; you are equally restrained from giving credit to the idle rumours of the day respecting the present pestilence, and to the pretended preventives and specifics against it. Mind your business—follow the rules of sound hygiene—avoid doubtful articles of diet, or hazardous exposures to atmospherical vicissitudes. If you make yourself the slave of idle fears, you forego any pretensions to good sense—you virtually admit your want of confidence in a guiding Providence, and set an example to others, which, if followed, would lead to the greatest anarchy, an upsetting of all social order, and an abandonment of all the kindly charities of life.

Let the doctrine of selfish and timid folks be carried out, and no person will be found to give assistance to his neighbour or friend—so entirely occupied will each one be about the means of preserving himself. We have, indeed, abundant evidence to show that if any subject be long allowed to engage the mind, and to be much and often discussed at corners of streets, the first theme at early morn—the last to be talked about, late at night, hallucination and partial insanity will result. We have already heard of the choleraphobia in Europe—we have seen it here, and are free to declare, that, upon the whole, it has done more widespread and lasting injury to trade, and more painfully and cruelly broken up the bonds of social intercourse, than the disease itself. The mortality has been chiefly among those whose conduct and circumstances in life have been such that death seemed to be either sought after by their gross neligence and wilful intemperance and exposure, or brought about by poverty and destitution—so great, that humanity could hardly regret their end. But the trammels to commerce, and to national and social intercourse, the uncalled sufferings of thousands by neglect, the deaths of many by senseless fears, are referrible to those whose information, easy circumstances, and presumed religious feelings, would have induced us to expect better things from them.

In our own community, the city of Philadelphia, there is less cause of complaint, on this score, than in most other places in which the disease has prevailed—and let it be said and remembered that the equable state of feeling displayed by her citizens is mainly due to the clear and firm expression of opinion by her medical men, who have done that for her which it is extremely problematical, would ever have been done by her corporate authorities. Public opinion has taken a safe and salutary direction, and it only remains for all who desire the welfare of their fellow-citizens, to contribute to the continuance of this state of

things. When death is making its inroads we cannot but feel some anxiety—but when is the destroyer ever at rest? At this season we see hardly any additional cause for alarm among those who are above want and poverty, and whose conduct is that of moral and reasonable beings. We cannot see any greater cause for public alarm, now that deaths are reported from cholera, than in other summers, in which the same description of persons, the drunkard, the dissolute, those overheated in a hot sun, and using improper food, have been taken suddenly sick, and died. The greater part of the population has no more reason to be disturbed now than then. The intense heats of summer generate an irritability, which makes persons more liable to be thrown into disease, by causes that at other times would be comparatively innocuous. The class of persons more peculiarly prone to thus suffer, are those above-mentioned. If we substitute the term, *epidemical state of the air*, for intense summer heat, we shall have a very accurate idea of the actual state of things—and, on investigation, we shall find that, with the exercise of common prudence and common sense, which implies an absence of senseless and childish fear, we are nearly as safe now as at other times. Certainly, a man of common discretion, living in or coming to Philadelphia, has a fairer prospect of life and exemption from disease than he had last winter, during the period of the prevalence of the influenza. It is more in his power to ward off cholera, than it was for him to escape influenza. If he attend to the first symptoms the one is as easily cured as the other; and in regard to transmission of the disease from person to person, or its being contagious, he need not entertain any more fear in cholera than he would have done in influenza. Senseless disregard of proper clothing and food, and exposure to sudden transitions of temperature, bring on both diseases, during the seasons of epidemical states of the air; fear will give effect to both, and induce both—and quackery will help to bring on both and kill in both. Again we would say to each and all of our readers, and to the public at large—do not make fools of yourselves—act as reasonable and reasoning creatures ought to do—and without fear, and in religious resignation, you may confidently abide by the result.

CLIMATE OF PALESTINE.

Under this head we include the usual properties of the atmosphere which minister to health and vegetation, for it has been justly remarked that Syria (Palestine) has three climates. The summits of Libanus, for instance, covered with snow, dif-

fuse a salubrious coolness in the interior; the flat situations, on the contrary, especially those which stretch along the line of the coast, are constantly subjected to heat, accompanied with great humidity; while the adjoining plains of the desert are scorched by the rays of a burning sun. The seasons and the productions, of course, undergo a corresponding variation. In the mountains the months of spring and summer very nearly coincide with those in the southern parts of Europe; and the winter, which lasts from November till March, is sharp and rigorous. No year passes without snow, which often covers the surface of the ground to the depth of several feet, during many weeks. The spring and autumn are agreeable, and the summer by no means oppressive. But in the plains, on the other hand, as soon as the sun has passed the equator, a sudden transition takes place to an overpowering heat, which continues till October. To compensate for this, however, the winter is so temperate that orange-trees, dates, bananas, and other delicate fruits, grow in the open field. Hence, we need hardly observe that a journey of a few hours carries the traveller through a succession of seasons, and allows him a choice of climate, varying from the mild temperature of France, to to the blood-heat of India, or the pinching cold of Russia.

The winds in Palestine, as in all countries which approach the tropics, are periodical, and governed in no small degree by the course of the sun. About the autumnal equinox, the northwest begins to blow with frequency and strength. It renders the air dry, clear, and sharp; and it is remarkable that on the seacoast it causes the headache, like the northeast wind in Egypt. We may further observe, that it usually blows three days successively, like the south and southeast at the other equinox. It continues to prevail till November, that is, about fifty days, when it is followed by the west and southwest, called by the Arabs "the fathers of rain." In March arise the pernicious winds from the southern quarter, with the same circumstances as in Egypt; but they become feebler as we advance towards the north, and are much more supportable in the mountains than in the low country. Their duration at each return, varies from twenty-four hours to three days. The easterly winds, which come next in order, continue till June, when they are commonly succeeded by an inconstant breeze from the north. At this season the wind shifts through all the points every day, passing with the sun from east to south, and from south to west, to return by the north and recommence the same circuit. At this time, too, a local wind, called the land-breeze, prevails along the coast during the night; it springs up after sunset, lasts till the appearance of the solar orb in the morning, and extends only a few leagues to sea.

Travellers have observed that thunder, in the lowlands of Palestine as well as in Egypt, is more common during the winter than in summer; while in the mountains, on the contrary, it is more frequent in the latter season, and very seldom heard in the former. It both these countries it happens oftenest in the rainy season, or about the time of the equinoxes, especially the autumnal; and it is further remarkable that it never comes from the land side, but always from the sea. These storms, too, generally speaking, take place either in the evening or morning, and rarely in the middle of the day. They are accompanied with violent showers of rain, and sometimes of uncommonly large hail, which, soon covering the face of the country with stagnant water, give rise to a copious evaporation.

The phenomenon alluded to by the prophet Elijah, is still found to diversify the aspect of the eastern sky. Volney remarks, that clouds are sometimes seen to dissolve and disperse like smoke; while on other occasions they form in an instant, and from a small speck increase to a prodigious size. This is particularly observable at the summit of Lebanon; and mariners have usually found that the appearance of a cloud on this peak is an infallible presage of a westerly wind, one of the "fathers of rain" in the climate of Judea.*

Waterspouts were not unfrequent along the shores of Syria, and more especially in the neighbourhood of Mount Carmel. Those observed by Dr. Shaw, appeared to be so many cylinders of water falling down from the clouds; though by the reflection it might be of these descending columns, or from the actual dropping of the fluid contained in them, they would sometimes, says he, appear at a distance to be sucked up from the sea. The theory of waterspouts in the present day does, in fact, admit the supposition here referred to; that the air, being rarefied by particular causes, has its equilibrium restored by the elevation of the water, on the same principle that mercury rises in the barometer, or the contents of a well in a common pump. The opinions of the learned traveller on this subject are extremely loose and unscientific, and are only valuable in our times as marking a certain stage in the progress of meteorological inquiry.

The same author has recorded a fact which we have not observed in the pages of any other tourist. In traveling by night, in the beginning of April, through the valleys of Mount Ephraim, he was attended for more than an hour by an *ignis fatuus*, that displayed itself in a variety of extraordinary appearances. It was sometimes globular, and sometimes pointed, like the flame of a candle; then it spread itself, so as to involve the whole company in its pale inoffensive light; after which it contracted,

* Travels or Observations, vol. ii. p. 135.

and suddenly disappeared. But in less than a minute it would begin again to exert itself as at other times, running along from one place to another with great swiftness, like a train of gunpowder set on fire; or else it would expand itself over more than two or three acres of the adjacent mountains, discovering every shrub and tree that grew upon them. The atmosphere, from the beginning of the evening, had been remarkably thick and hazy; and the dew, as felt upon the bridles, was unusually clammy and unctuous. In such weather similar luminous bodies are observed skipping about the masts and yards of ships, and are called by the mariners *corpusanse*, a corruption of the *cuerpo santo*, or sacred body, of the Spaniards. The same were the Castor and Pollux of the ancients. Some writers have attempted to account for these phenomena, particularly for the *ignis fatuus*, by supposing it to be occasioned by successive swarms of flying glowworms, or other insects of the same nature. But, as Dr. Shaw observes, not to perceive or feel any of these insects, even when the light which they produce spreads itself around us, should induce us to explain both this appearance and the other on the received principle that they are actually meteors, or a species of natural phosphorus.*

THE PEACH TREE.

No tree presents a more beautiful appearance to the eye than the peach tree in full blossom. The richness and delicacy of the colours, united with the agreeable odour exhaled from the flowers, render it an object of regard by all who take delight in the thousand manifestations of the goodness and benevolence of the Deity. Yet these leaves and flowers, pleasant as they are, both to the smell and the sight, contain no inconsiderable quantity of one of the most deadly poisons that is known in the whole range either of nature or of art, and which can be separated from the blossom by a process not difficult to be performed. Ten drops of this liquid, undiluted, are amply sufficient to destroy the life of the most vigorous man, and its effects are as rapid as they are certain. It preserves also the agreeable fragrance of the natural flower, and the taste is sweet and pleasant to the palate; and, although not intoxicating itself, (in the usual meaning of the word,) it is often added to give a flavour to those factitious beverages, which, under the names of *cordials, liqueurs, Noyeaus, &c.*, have been invented to poison those who are too polite to become victims to the ordinary and vulgar potations of brandy and rum.

* Travels through Syria and Egypt, vol. i. p. 313.

Now suppose that fashion, or any other preposterous whim of folly, should attempt to introduce this article into general use; is there a person of common sense who would admit, for a moment, that a man had a *right* to manufacture and sell it, either because the appetite of the public was depraved, and demanded it, or that it was a profitable business, and to be followed as necessary for the support of his family?—And what would be thought of that farmer, who should so far pervert his most honourable occupation, as to rear peach trees for the sake of the blossoms, that a deadly poison might be extracted, and thus deprive the community of that fruit which a kind Providence intended for preserving health, and adding to the innocent gratification of his creatures? Yet, in what essential particular would such conduct differ from that which is practised every day by thousands, who would fain be deemed *honest* and *honourable* men? The various grains intended for the sustenance of mankind, are as much perverted from their lawful use, by being converted into alcohol, as would the flowers of the peach tree, in the case supposed. The product in each is equally a poison—the one as effectually destroying life as the other, and differing only in the rapidity of their operations, and *nothing at all in their certainty.* While one would be proscribed by the unanimous consent of the community, the use of the other is not merely defended, but the arguments of those who would persuade to its abandonment are resisted, upon the ground that such result would be a surrender of the rights and privileges of a *freeman.* Alas, for the inconsistency of human reason!—*Norwich Rel. Messenger.*

PROUD FLESH.

It is somewhat difficult to understand exactly what is meant by the term proud flesh; though it is one in the mouth of every person, almost, out of the profession. Whenever an ulcer or sore occurs, their anxiety is to know, whether there is any proud flesh in it; and every old granny will recite to you a thousand applications for the destruction or prevention of this much dreaded evil. Surgeons, it is true, often meet with ulcers, the healing of which is prevented by the granulations or new particles of flesh, projecting too much beyond the level of the surrounding parts, forming a soft, spongy excrescense of a pale red colour, which is extremely irritable, and bleeds on the slightest touch. To prevent the growth of this, various applications are necessary. But, we have found, that where no such fungus granulations have existed in a sore, it has been pronounced by the vul-

gar to be filled with proud flesh. The granulations themselves, by which the process of healing is carried on by nature, in the healthiest and most simple ulcer, are in fact constantly mistaken by the ignorant for a diseased production—in other words for proud flesh. We have thought it necessary to advert to this fact on the present occasion, in consequence of the serious injury which is produced every day, by the various irritations and caustic applications, that are applied to ulcers in order to get rid of this imaginary proud flesh. An ulcer which, if left at rest, with only the simplest dressings, would have healed perfectly in the course of a few days, has been converted, by the remedies applied to it, to destroy proud flesh, into an indolent, long continued, painful and unmanageable sore; and which often can only be got rid of by a painful operation. We have known an ulcer dressed every time it exhibited red granulations, without the production of which it could not have healed, with burnt alum, blue vitriol, or calcined oyster shells, that is, pure lime. The effect of which dressings was the spread of the ulcer over the whole leg, and confinement in the hospital for a month or two before it was effectually healed; and even then a spreading painful sore was liable to be produced by every slight injury inflicted upon the limb.

In the treatment of ulcers, particularly those which occur in the lower extremities, in certain constitutions, a very considerable degree of skill and judgment are required—and the public would do well in all cases carefully to avoid the applications, to the use of which they are urged by their friends or officious neighbours, and have recourse at once to the advice of a regular surgeon. By so doing they will often avoid much suffering and confinement—and we may add, expense also.

DISINFECTING POWER OF HEAT.*

Much interest has of late been excited by the publication of a series of interesting experiments devised and performed by Dr. Henry, of Manchester, England, which would seem to show, very conclusively, the disinfecting power of elevated temperatures. Dr. Henry's attention was first directed to the subject in consequence of a wish expressed by a townsman of his, that some effectual method could be devised of guarding against the introduction of the plague into England, by means of cotton, without incurring the serious commercial sacrifices attending the enforcement of quarantine. This is not the first instance in the history of philosophy, of inquiries engaged in

* From the Health Almanac for 1833.—Published and for sale by Key, Mielke & Biddle, Philadelphia.

from the dictates of a doubtful, or even erroneous hypothesis, resulting in the discovery of important facts, and the establishment of a true theory. For ourselves, we are utterly sceptical of the contagiousness of plague, and we may add, in advance, of typhus fever. After entering this caveat, we proceed to lay before our readers the leading facts detailed by Dr. Henry, in the Philosophical Magazine and Annals of Philosophy, for Nov. 1831, and January, 1832.

Arguments, derived from chemical reasoning, appeared to strengthen the probability, that "temperature, raised to no great extent, would suffice for the decomposition of infectious or contagious matter, the affinities to which they owe their existence being nicely balanced, and easily disturbed."

In pursuing, experimentally, the inquiry, two circumstances seemed to Dr. Henry to require to be established.

1st. That raw cotton, and other substances likely to harbour contagion, would sustain no injury by the temperature conceived to be necessary for their disinfection.

2dly. That, in at least some one unequivocal instance, contagious or infectious matter should be proved, by actual experiment, to be destructible at that temperature.

I. The result of some trials to test the first of these propositions was at first discouraging, as it was found that raw cotton, submitted to a dry heat of 180 to 190 deg. Fahrenheit, for two hours, was pronounced to be essentially injured; and cotton yarn, similarly exposed, had lost nearly a third of its former power of resistance. It was, however, fortunately soon discovered, that if the articles in question were put to one side for a few days, and allowed to recover their customary amount of moisture, they at the same time regained—the raw cotton the capability of being spun into perfect yarn, and the yarn its former tenacity, so as to bear the same weight as that which had not been subjected to the heat.

"Articles of cotton, silk, and wool, after being manufactured, both separately and in a mixed state, into piece goods, for clothing, were next submitted to the same treatment. Among them were several fabrics, which were purposely chosen, of the most fugitive colours and delicate textures. After being exposed three hours to a temperature of 180°, and then left a few hours in a room without fire, they were pronounced, by an excellent judge of the articles, who furnished the specimens, to be perfectly uninjured in every respect. Furs and feathers, similarly heated, underwent no change; and there can be no doubt that if the apparatus had enabled me, (says Dr. H.) conveniently to have raised steam of increased density, a temperature above 212°* Fahrenheit, would have done no injury to the delicate and costly articles submitted to it."

II. The most important point to be ascertained, and that on which the utility of the inquiry hinges, is whether a temperature below 212° Fahrenheit is capable of destroying the contagion of *fomites*—*Fomites* (the plural of

* The temperature of boiling water.

fomes, fuel) expresses contagious matter existing in absorbent substances—such as wool, clothing, &c. One of the best tests of the power of heat to decompose contagion, was furnished in subjecting to this agency the matter of cowpock.

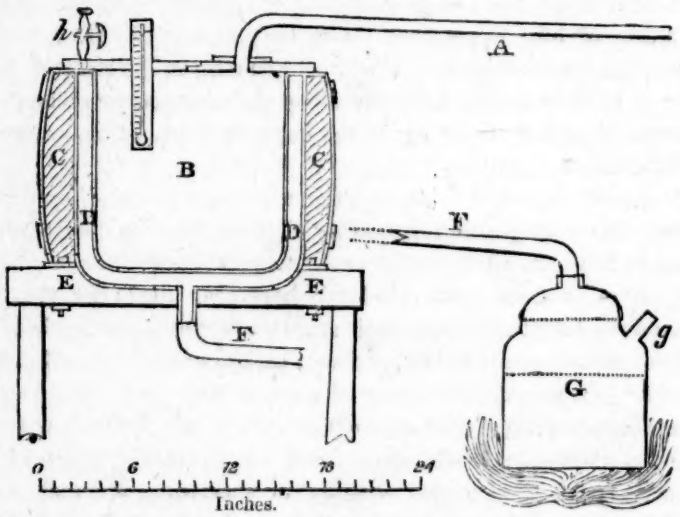
It resulted from various trials made by Dr. Henry, with the assistance of Mr. Gee, the house-apothecary of the Lying-in-Hospital, that vaccine matter is not destroyed by a temperature of 120° Fahrenheit; and it is even probable that it would sustain, without losing its efficacy, a heat several degrees higher. 2dly. That vaccine lymph is rendered totally inert by exposure to a temperature of 140° Fahrenheit. May we not, says Dr. H., hence infer, that those subtle animal poisons which lie dormant, in the state of *fomites*, are likely to be disarmed of their terrors by the same simple means? The inference has been fully borne out in the instance of scarlatina, by late experiments of Dr. Henry.

He found, after repeated trials, that the contagious matter of scarlatina, so apt to remain for a long time attached to clothing, may be dissipated or destroyed by exposure to a temperature not below 200° Fahrenheit. The disinfecting agent in these cases could only have been heat; for the flannel waistcoats worn next the skins of patients in the height of scarlet fever, were put in closed receptacles, and bottles closely corked and sealed, and subjected to heat alone. These waistcoats were afterwards worn by persons who never had the scarlatina, and yet they entirely escaped in the present instance.

The ingenious and scientific author limits his proposal for the destruction by heat of the contagion, to that existing in substances technically called 'susceptible:' for instance, to infected clothing of every description, infected bedding and bed furniture of every kind that would be spoiled by washing; to trunks and other packages brought by travellers from places in which a contagious disease is prevailing, and merchandise, wherever it can be shown, or rendered highly probable, that such merchandise has been in the way of imbibing contagious matter. Letters rendered almost illegible by fumigation, might be disinfected in this way, if not closed by sealing-wax but by wafers. Writing paper begins to burn brown a little under 300° Fahrenheit; but it still retains its texture, and the ink is not materially changed.

The apparatus employed in the process of disinfection is so simple, that a representation of it can only be required by those who are not conversant with the application of steam as a source of heat. The object in this instance, is to place articles of clothing, &c. which are intended to be disinfected, in a steady temperature above 200° Fahrenheit, for any required length of time, without, however, allowing the steam to come in contact with substances so exposed. This is effected by two vessels of copper, or of tinned iron; on the innermost of which the letter B stands in the sketch. The latter vessel is set within a larger one of similar shape, upon the edge of which it rests by a rim, which is united to the larger vessel by solder. There is, therefore, a cavity between the two vessels shown by the letters D D, for containing the steam. The bottom of the outer vessel is a little dished, or sloped downwards, and to the central part is soldered a short pipe for admitting steam

and returning water; the space, on the centre of which the letter B is placed, is the *receptacle* for the articles which are to be heated. To avoid the waste of heat through the sides of the outer vessel, it is packed all round, as shown at C C, with any non-conducting substance, such as hemp, bands of straw, or rolls of flannel. To prevent these from being displaced, they may be surrounded by barrel staves, secured by hoops of wood or metal, Over the top of the apparatus a wooden cover is applied, which being rabbeted along the middle, as shown by the sketch, admits either of one half or the



whole of the cover being removed at pleasure. From this cover, towards the right, a pipe A proceeds, the only objects of which is to carry into the flue of the chimney any contagious effluvia that may possibly escape undecomposed. The thermometer is introduced occasionally through a slit in the other half. The small air-cock *h*, which is removable at pleasure, passes through an aperture in the same half of the cover, and, when open, establishes a communication between the space D D and the atmosphere. The whole vessel rests on a table E E, (the legs of which are represented as if broken off,) hollowed out to receive it. To this table, the vessel is fastened by four small bolts, the extremities of two of which are shown by the sketch. To give a hold to the heads of these bolts, a *flanche* is soldered near the bottom of the outer vessel, which has also a corresponding flanche at the top, for the purpose of keeping the packing in its place.

The small boiler G has a movable lid, from the centre of which issues a pipe F F, five or six feet long, or any other convenient length, which slips over the pipe that descends from the steam vessel. To bring the drawings into less space, this pipe is represented with a part broken off. The dimensions of every part of the apparatus are given by the scale annexed to the sketch.

The vessel G is to be filled about two-thirds with water, which, to save time, may be nearly boiling at the outset. Being set over a fire, and the

joints that require it having been made good by flour-paste spread on paper, the opening *g* is to be shut by a cock or plug, and the small air-cock opened, to allow the escape of the air confined in the space D D. Both halves of the cover being then put into their places, the thermometer is to be introduced through the slit. When it indicates upwards of 200° F., that half of the cover from which the pipe A proceeds* is to be removed, the infected articles are to be placed in the receptacle, and the half cover replaced. The fire under the boiler is to be regulated by the rate at which the excess of steam issues from the small air-cock. This excess, if found inconvenient by its escape into the room, may be conveyed to the outside by a pipe of the necessary length, screwed upon the lapped end of the air-cock. Hot water will require to be occasionally supplied through the aperture *g*; but, unless the steam be unnecessarily wasted by too large a fire, this need not be done after, as what is condensed in the cavity D D is constantly trickling back into the boiler through the pipe F F.

The dimensions and shape of the apparatus, and the material of which it is made, may be varied according to the extent of the operations for which it is intended. For domestic purposes, a common teakettle, by stopping the spout with a plug, and making the necessary additions to the lid, will answer perfectly well; and a cheap and simple disinfecting vessel, resembling B, may easily be contrived. For large operations, a boiler of sheet iron, resembling that of a steam engine, will be necessary. If thought expedient, a higher temperature than 212° Fahrenheit, may easily be obtained in the receptacle, by subjecting the steam to a greater pressure than that of the atmosphere, the apparatus being, in that case, provided with a proper safety valve.

If heated air should be found adequate to the effect, it might be employed for ordinary articles, reserving the more costly vehicle, steam, for articles which are of greater value, and which are easily injured.

PORT WINE—PURE JUICE OF THE GRAPE.

The unfortunate and ill-judged recommendation by one or two New York physicians, who had visited Canada in the cholera season, to drink port wine as a means of prevention, in order to give tone to the stomach and bowels, has suddenly produced a great demand for the article. We say the recommendation was unfortunate, because it has led to the free use, by a great many persons, of a wine which is more adulterated and drugged than, probably, any other in the market. The recommendation was ill-advised, because, even when pure, port wine is illy adapted to general use as a drink for those with irritable digestion. All of a sudden, as we learn from advertisements in the

* The pipe A will be found much more convenient if made into two parts, the part attached to the cover being not more than a foot long, its open end being made to slip into the longer part, as a few drops of moisture always escape.

newspapers—a quantity of pure port wine, *free from brandy, and other foreign matters*, seems to have been brought out from the vaults of wine-merchants, to whom its purity would seem to have been hitherto unknown. We are sorry for the credit of the advertisers, and we have one in a New York paper more immediately in our eye at this moment, that such annunciations should be made. If any person knows their inaccuracy, it must be they who trade in wines.—Need they be told, that no port wine is exported from Portugal, for London or elsewhere, without a large admixture of brandy—Can they be ignorant of the fact, that in England it is still further drugged—and that more than half of the liquor sold and drunk in that country as port wine is a vile compound, into which there does not enter a drop of the juice of Portuguese or any other kind of grape. An incident, which occurred some years back in London, is a good and no uncommon illustration of the kind of port wine drunk by his British majesty's good lieges. It seems that a carter, by careless driving, or from some unavoidable accident, allowed a pipe of port wine to roll off and be stove in, and consequently spilt in the street. The owners brought suit against the man for the recovery of the value of the wine, estimated at market price. But the carter, who was in the secret, proved, by the testimony of one of the persons employed in the manufacture, that there was not more than *five gallons of real port in the pipe.*

The initiated need not be reminded of the enormous extent to which the sophistication of wine is carried—nor of the means by which it is performed. They know the department of this trade called *crusting* of bottles and casks, staining the lower ends of bottle-corks with a fine red colour—and also the ingredients by which the astringency and colour of the wine are simulated—such as alum, logwood, elderberries, juice of sloes, &c. They may object to the testimony of Accum in this matter, but they cannot so well deny the authority of a certain book, called "*A useful Guide for Grocers, Distillers, &c.*" published, two or three years ago, in New York. The curious reader will find in it *most approved receipts* for making '*English Port*,' and '*Imitation Port*,'—and will probably, after a perusal of these, and of the methods by which '*Genuine Old Port*' is manufactured in London, have some shrewd suspicions about the *purity*, and freedom from *brandy, and other foreign matters*, of the port wine advertised here at home.

Physicians should weigh these things well before they recommend a liquor for general use. They ought to have known, in the present case, that, for one bottle of pure port wine, ten of a spurious and an adulterated kind will be drunk by their fellow-citizens. We have great doubts of the propriety, under any view of the question, of people drinking brandy and water, or cider and brandy, coloured with logwood and tasted with alum, as a preventive of cholera; and sure we are that a great many who consider themselves port wine drinkers, take, in fact, this precious compound.

It should be remembered, also, that even the purest port that can be obtained, contains so large a proportion of alcohol, 20 to 25½ per cent.—about half the strength of brandy or whiskey—that it ought to be prescribed with

care even medicinally. Rarely ought it to be used dietetically, or as a preventive of cholera, or of any other disease. Let our readers note the inconsistency in this case:—Brandy is strictly forbidden—its use is regarded as fatal in cholera times.—What then is the inference? To abandon alcoholic liquors, and substitute simple water, or a vegetable infusion, as a beverage? O no, in place of plain brandy and water, a physician—we ought rather to say some physicians—direct the use of disguised brandy, as in Port! The astringency of this modified brandied compound, on which its virtues are supposed to rest, is not by any means a commendable property in incipient diarrhœa, or the early or premonitory stage of cholera. Every practitioner knows that the use of astringent medicines at this time requires a very nice discrimination of cases; and, as a general rule, is by no means to be recommended.

BOERHAAVE.—BACON.

THERE is a tradition in Holland, that Boerhaave, the celebrated physician, used to tell his particular friends that the great secret of preserving health, after temperance and moderate exercise, was to keep the head cool, the feet warm, and the digestion unimpaired, and to have as little as possible to do with medicine. He told an English lady—"Your countrymen destroy themselves by strong passions, strong punch, and the too frequent use of barks." There is also a tradition that Boerhaave kept himself constantly warmly clad in his moist country.

Lord Bacon, who was, perhaps, a little too whimsical in the things relating to his health, took every precaution to prevent what he termed "the predatory influence of the external air upon the vital spirits." He was convinced, that, by oil and woollen clothing, much good was in this way effected. He used to repeat, with much satisfaction, the reply of the ancient Gymnosophist, who, to some one who asked of him how he came to live to a very advanced age, replied—"By using honey internally, and oil externally."

"In a certain town on the eastern coast of America," says an anonymous lecturer on philosophy, "the people under a changeful and blustering sky are remarkably healthy."—On inquiring into the cause of their exemption from the usual effects of cold and damp, and frequent atmospherical vicissitudes, he was told that "settlers, some years previously, were very much harassed by diseases, and that, by an epidemic, the town was nearly depopulated. Some people of North Briton coming to settle amongst them, who, being seriously disposed, and withal wise and prudent, took good care of themselves, were in the constant habit of wearing woollen garments next unto their skins, and

in this manner escaped disease. The inhabitants observing this, made use of the same covering, and never thenceforth suffered from their old complaints."

Thus we find that the common experience of mankind has always pointed to the true means for the preservatives of health—though so few have had the good sense to profit by that experience.

METHOD OF PRESERVING MILK.

M. KIRKOFF, a Russian chemist, who discovered the means of converting starch into sugar, has made numerous experiments upon milk, the result of which is that it can be preserved for any length of time. The process is as follows:—Fresh milk is to be slowly evaporated over a moderate fire, until there remains only a dry powder; this last is to be put into a bottle, which is to be closely corked; when required for use, it is sufficient to dissolve a portion in a suitable quantity of water. The mixture will have the taste and all the properties of milk.

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